MEETING REPORT NO. 20

PROJECT: **Town of Needham Downtown Study**

DATE: 08 August 2007

LOCATION: Needham Public Library

PRESENT: Downtown Study Committee (DSC)

Kate Fitzpatrick
Jack Cogswell
Jerry Wasserman
Bob Smart
Moe Handel
Lee Newman
Mark Gluesing
John Edgar
Jeanne McKnight
Paul Good
Martin Batt

DiNisco Design Partnership (DDP)

Kenneth DiNisco

Beta Engineering

Elizabeth McChesney
Judi Barrett

1. PURPOSE

1.1. The purpose of the meeting was to review the build-out, parking, and traffic analyses.

2. BUILD-OUT ANALYSIS

2.1. Judi Barrett presented slides for existing conditions with buildout potential and maximum development. The presentation also included the “effective buildout” which is the most probable scenario since many of smaller lots are unlikely to be developed due to setback, parking, and economic limitations.

3. TRAFFIC AND PARKING ANALYSIS

3.1. Liz McChesney presented a traffic analysis based upon existing condition and 100% build-out. The presentation focused on the center district three intersections and the impact of development on the intersection.

3.2. The parking analysis indicates that proposed parking spaces exceed those in ITE Parking manuals.

4. DISCUSSION

4.1. Discussion focused on whether the proposed (maximum or effective) buildout/ created unacceptable traffic conditions based upon goals previously discussed with the DSC.

4.2. While there was general agreement that the traffic implications of buildout were acceptable, it was suggested that information be presented at the next meeting that could be understood by the general public.

5. NEXT MEETINGS

5.1. The next scheduled meeting of the DSC is to be determined.

6. AGENDA

1) Convert letter grades for each intersection to time (seconds).
2) Provide traffic projections for effective scenario versus build-out scenario.
3) Estimate non-peak versus peak hours.
4) Discuss what are reasonable expectations for downtown traffic.
5) Discuss mitigation measures in terms of cost/benefit/time.

The discussions of this meeting are recorded as understood by the writer. Please advise the writer of any omissions or corrections.

Kenneth F. DiNisco AIA
DiNISCO DESIGN

KFD/ jc

cc: DSC
Richard Rice
Jon Oxman

NEEDHAM DOWNTOWN STUDY

Implications of Proposed Dimensional Standards

August 8, 2007

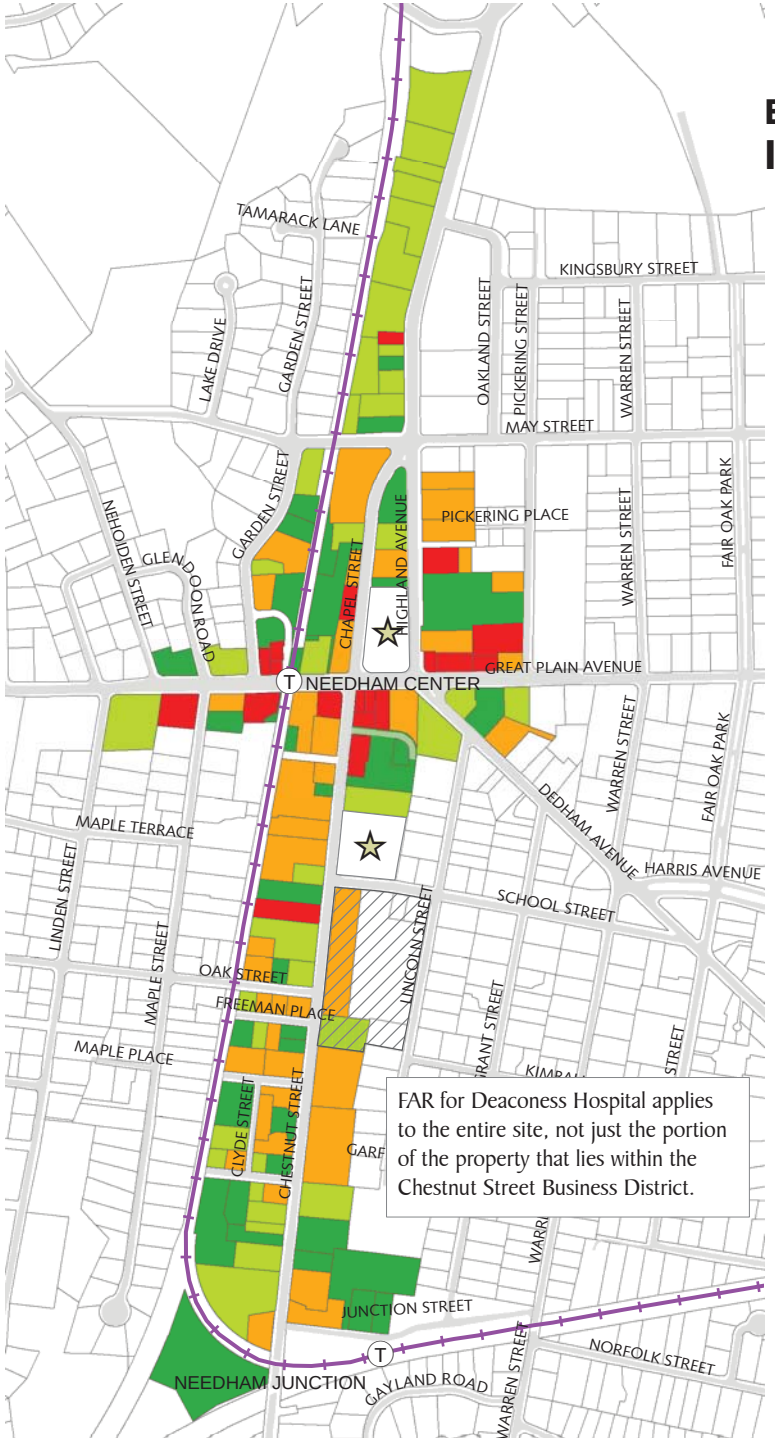
Community Opportunities Group, Inc.
for
DiNisco Design Partnership &
Town of Needham

Needham Downtown Plan

Existing Uses and Intensity of Use

From Interim Report:

- 131 Parcels
- 1.2M sq. ft. existing development
- Retail, restaurant space 47%
- Office space: 23%
- All other commercial: 10%
- Residential 3%
- Public services, institutional uses 17%



Existing Conditions: INTENSITY OF USE

Medical Overlay District

EXISTING USE INTENSITY

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 0.99
- 1.00+

Town Hall
Fire Station

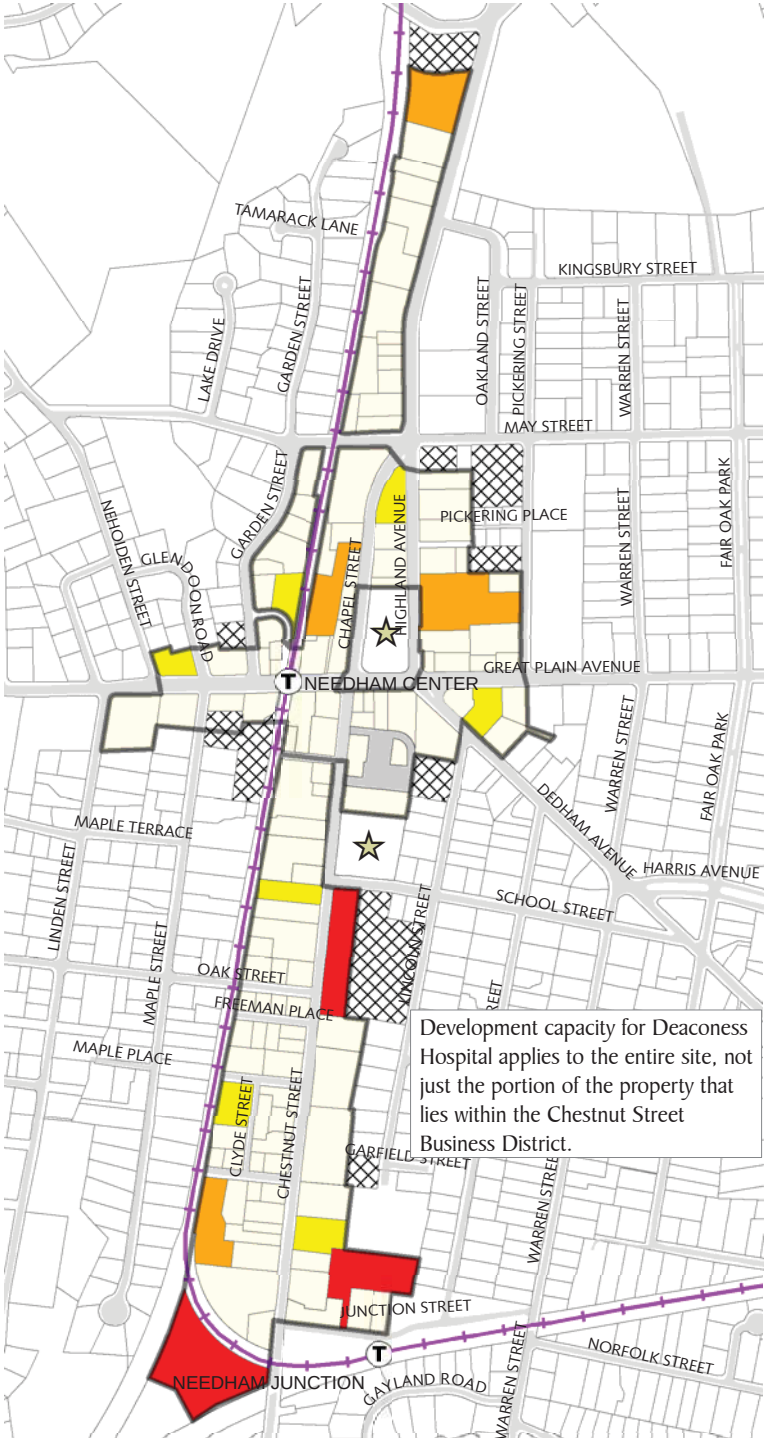
0 250 500
Feet

SOURCES OF DATA:
Needham Assessor's Office
Needham Planning Department
MassGIS

Needham Downtown Plan

From Interim Report:

- Business District in one parcel: 28,637 sq. ft.
- Center Business District: six parcels, combined total of 115,986 sq. ft.
- Chestnut St. District: seven parcels, combined total of 129,502 sq. ft.
- Medical Overlay: 58,500 sq. ft. (or 88,000 for entire district)



Existing Conditions: BUILDOUT POTENTIAL

Study Area
Existing Parking
Split Lot Area

DEVELOPMENT POTENTIAL (SQ. FT.)
0 - 5,000
5,001 - 15,000
15,001 - 30,000
More than 30,000

Town Hall
Fire Station

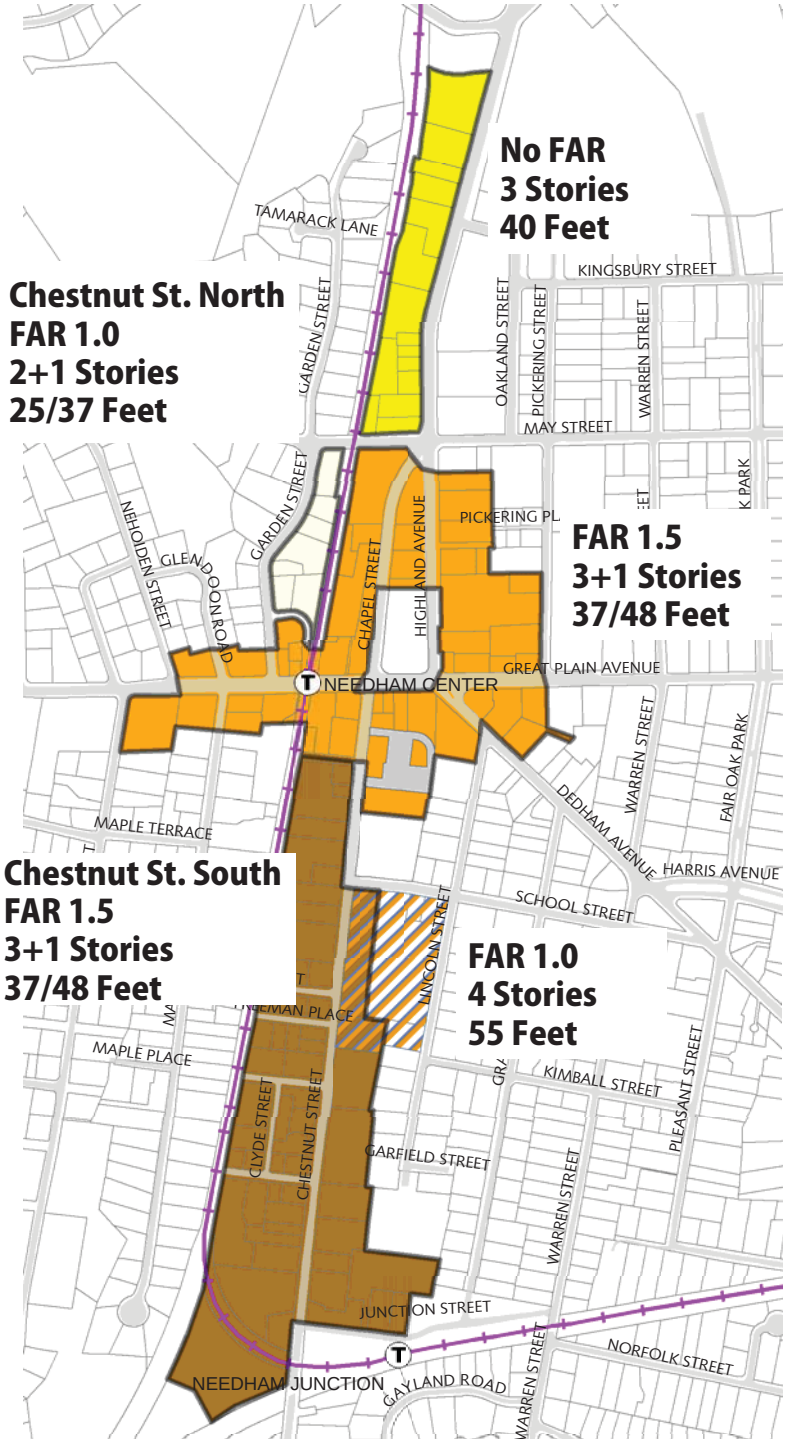
0 250 500
Feet

SOURCES OF DATA:
Needham Assessor's Office
Needham Planning Department
MassGIS

Needham Downtown Plan

Proposed Dimensional Changes: DiNisco Design

- Business District: no change
- Medical Overlay: no change
- Center Business: FAR 1.5, 3+1 Stories
- Chestnut Street South: FAR 1.5, 3+1 Stories
- Chestnut Street North: FAR 1.0, 2+1 Stories



Proposed Conditions:
ADDITIONAL GROSS FLOOR AREA

DISTRICT-WIDE MAXIMUM

Study Area
Existing Parking

ADDITIONAL FLOOR AREA
- 19,696
- 28,637
- 284,846
- 369,664
- 58,476

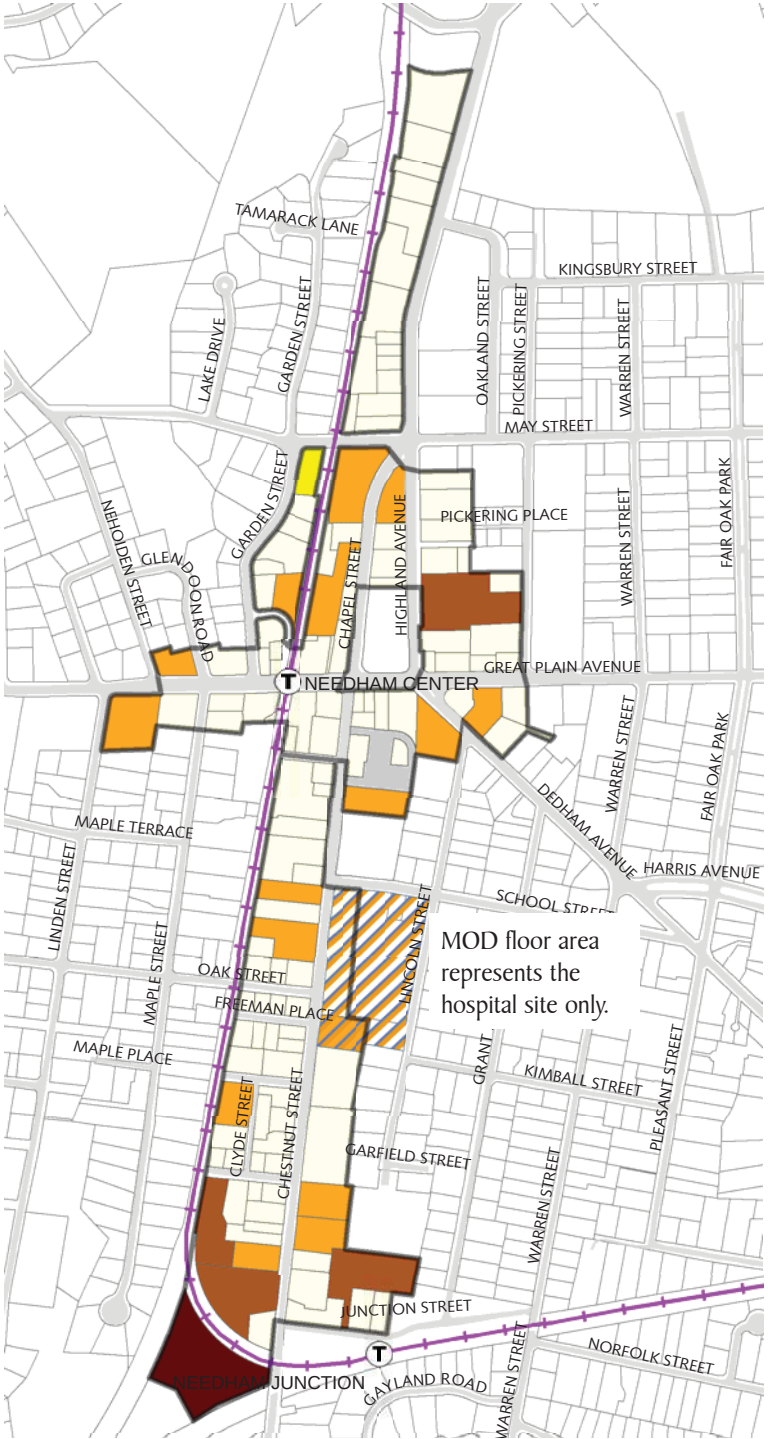
0 250 500
Feet

SOURCES OF DATA:
Needham Assessor's Office
Needham Planning Department
MassGIS

Needham Downtown Plan

Proposed Dimensional Changes: DiNisco Design

- Business District: no change
- Medical Overlay: no change
- Center Business: 10 parcels, 285,000 sq. ft.
- Chestnut St. North: 2 parcels, 19,500 sq. ft.
- Chestnut St. South: 12 parcels, 380,700 sq. ft.



Proposed Conditions: ADDITIONAL GROSS FLOOR AREA

PARCELS

Study Area

Existing Parking

ADDITIONAL FLOOR AREA

- 0 - 2,500
- 2,501 - 9,999
- 10,000 - 39,999
- 40,000 - 69,999
- 70,000 - 100,185
- 58,476

0 250 500

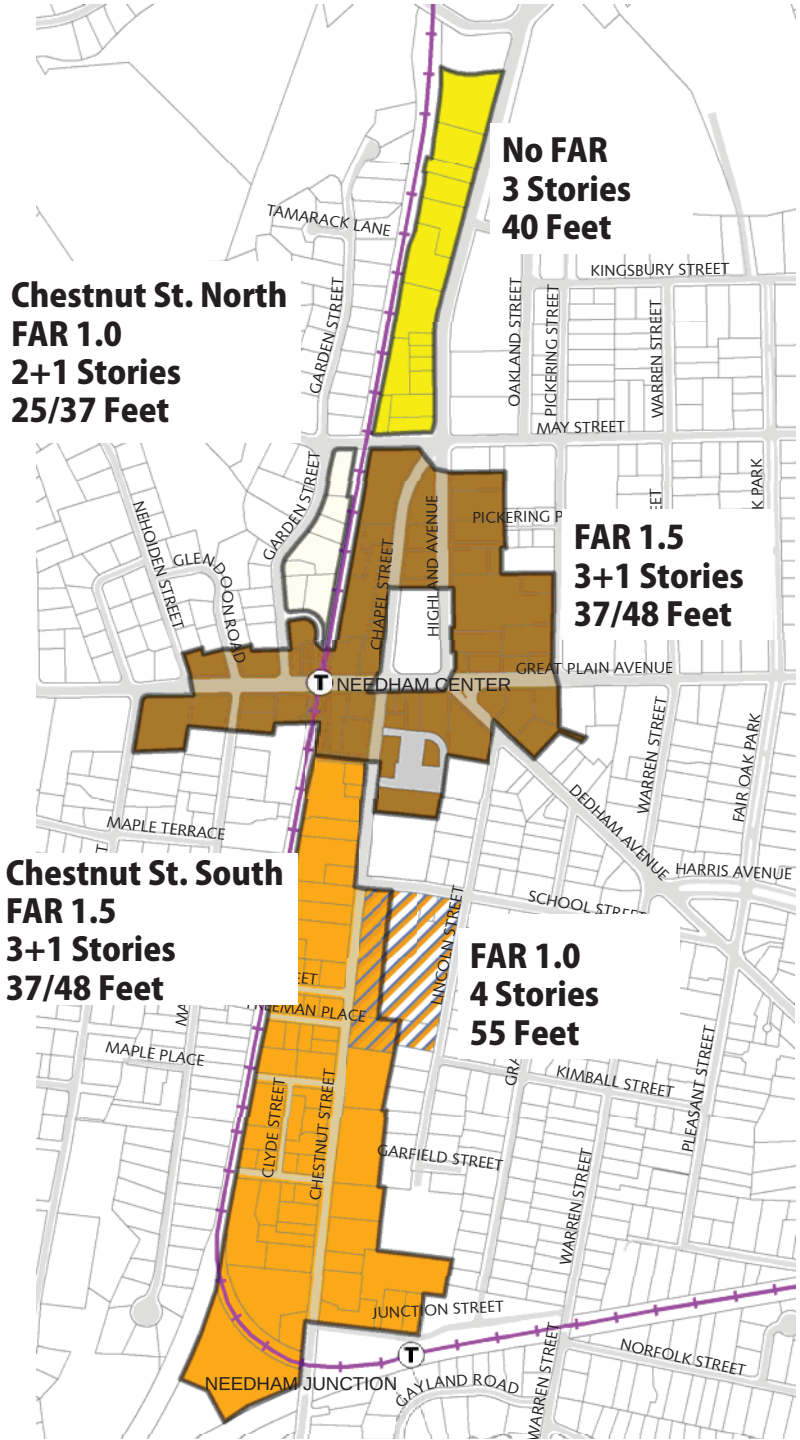
Feet

SOURCES OF DATA:
Needham Assessor's Office
Needham Planning Department
MassGIS

Needham Downtown Plan

Proposed Dimensional Changes: DiNisco Design

- Business District: 120,400 sq. ft.
- Medical Overlay: no change
- Center Business: 853,000 sq. ft.
- Chestnut St. North: 43,000 sq. ft.
- Chestnut St. South: 913,000 sq. ft.



Proposed Conditions:
TOTAL GROSS FLOOR AREA

DISTRICT-WIDE MAXIMUM

Study Area
Existing Parking

TOTAL FLOOR AREA
- 43,417
- 43,418 - 145,646
- 145,647 - 797,217
- 797,218 - 853,170
- 58,476

0 250 500
Feet

SOURCES OF DATA:
Needham Assessor's Office
Needham Planning Department
MassGIS

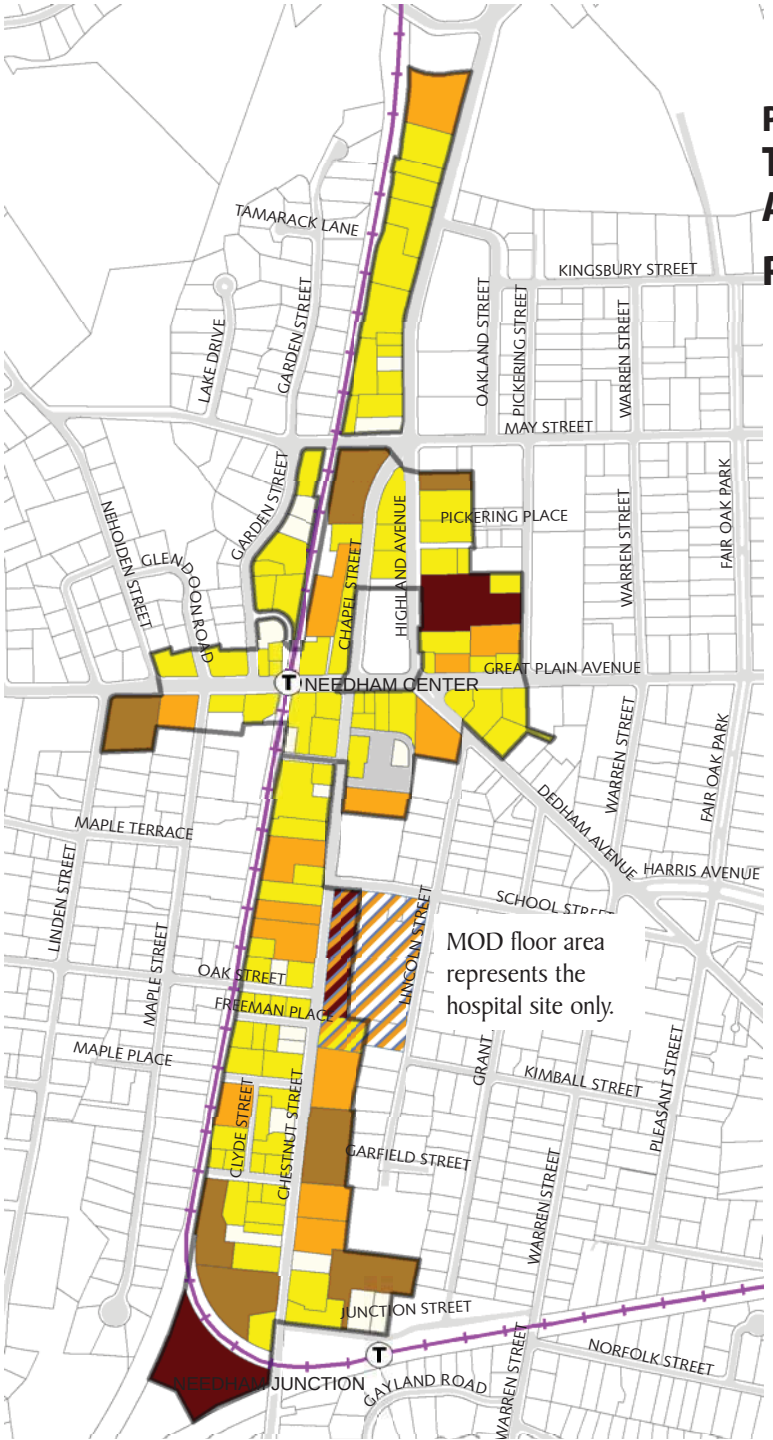
Needham Downtown Plan

Proposed Dimensional Changes: DiNisco Design

Assumptions:

Effective FAR .90/1.15 for Center Business, Chestnut Street South

Effective FAR .75 for Chestnut St. North



Proposed Conditions:
TOTAL GROSS FLOOR AREA

PARCELS

Study Area
Existing Parking

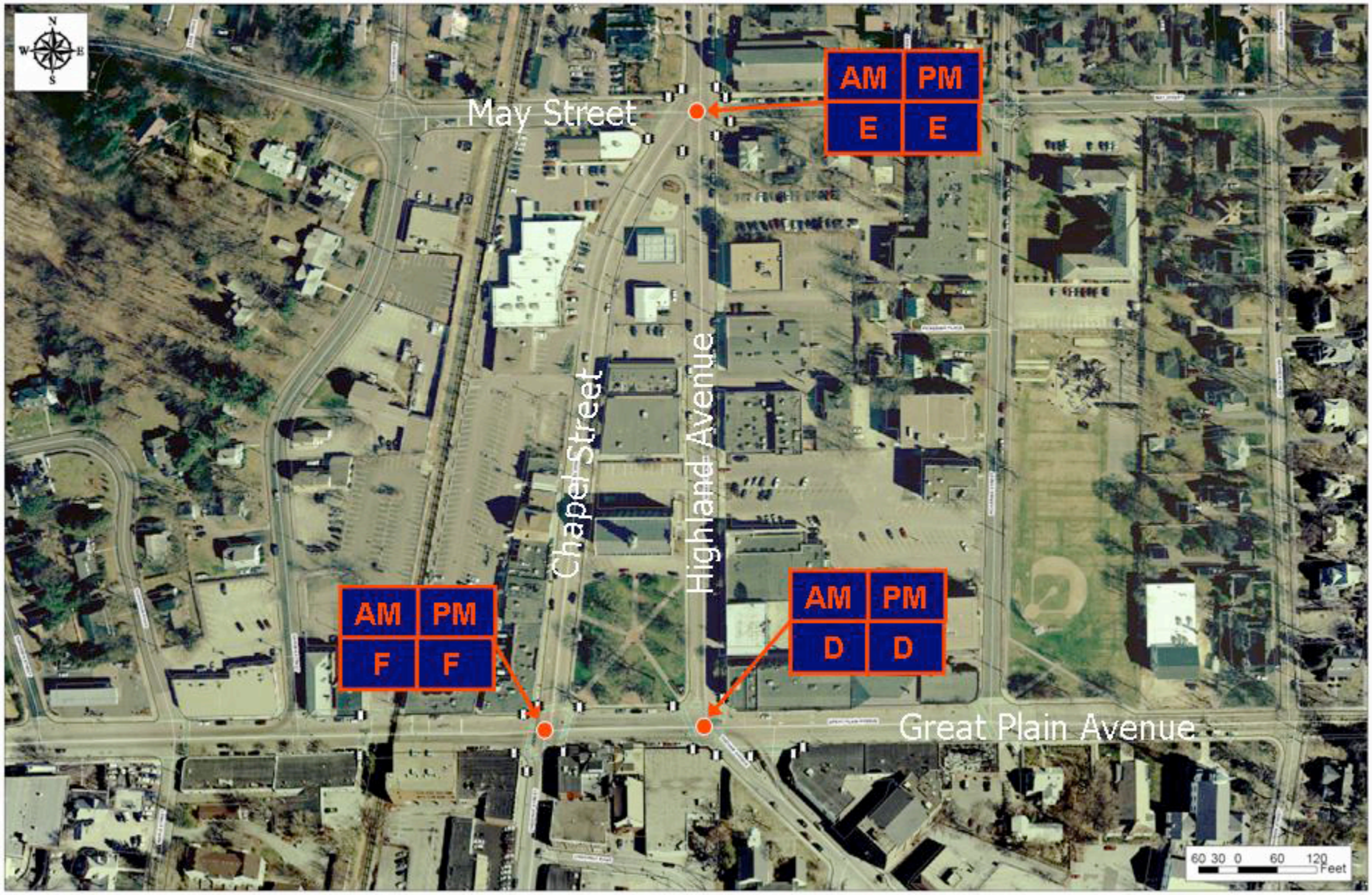
TOTAL FLOOR AREA
- 0
- 1 - 19,999
- 20,000 - 39,999
- 40,000 - 74,999
- 75,000 - 117,995
- 58,476

0 250 500
Feet

SOURCES OF DATA:
Needham Assessor's Office
Needham Planning Department
MassGIS

BETA Group, Inc.
Engineers • Scientists • Planners

Existing Traffic Operations Conditions



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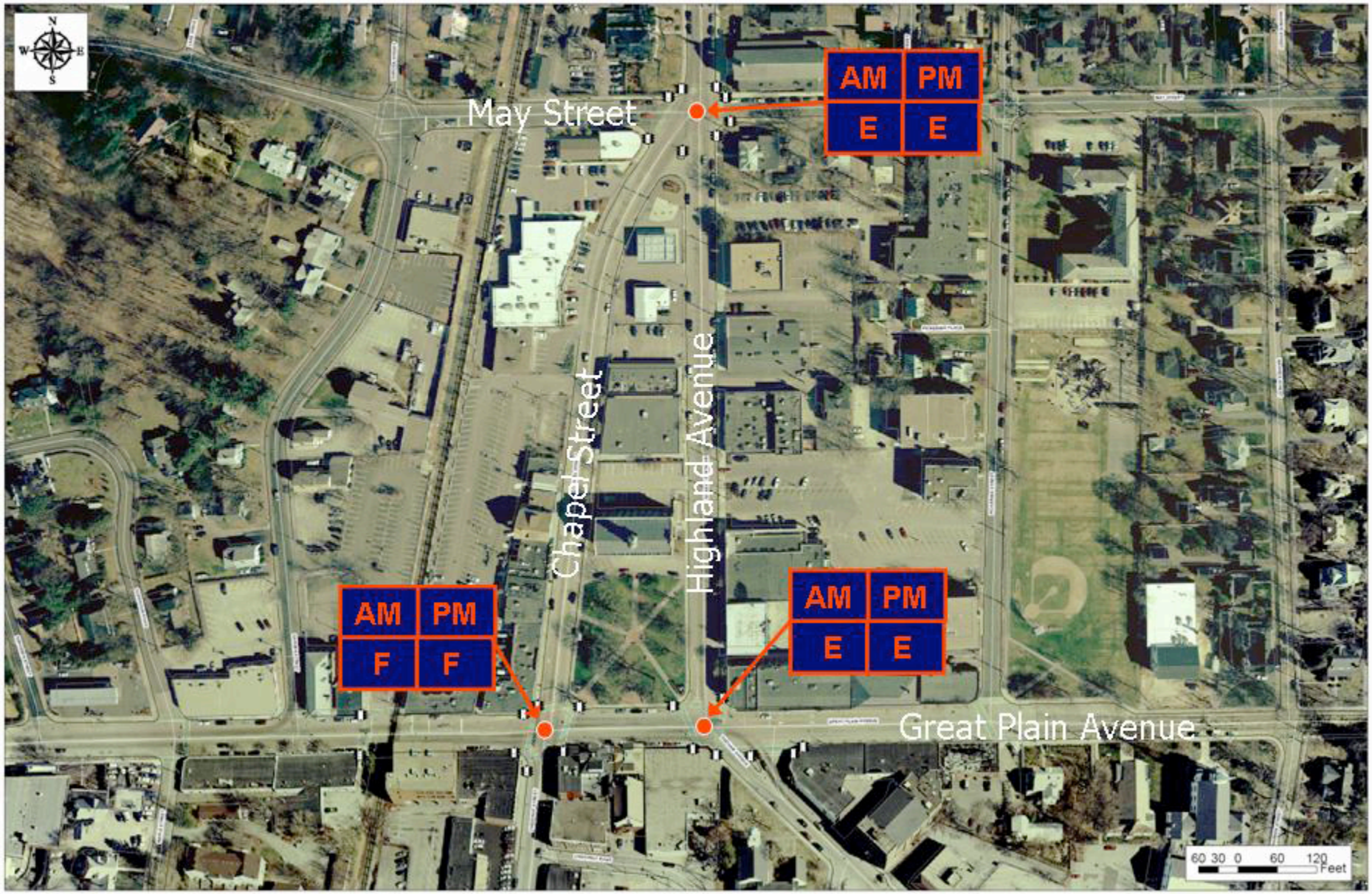
2027 "No Build" Traffic Operations Conditions



Needham Master Plan
Existing Public Parking Lots
Downtown Locations

Eaton Square Lot
78 Spaces

Chapel Street Lot
133 Spaces

N

Dedham Avenue Lot
68 Spaces

Chestnut Street Lot
182 Spaces

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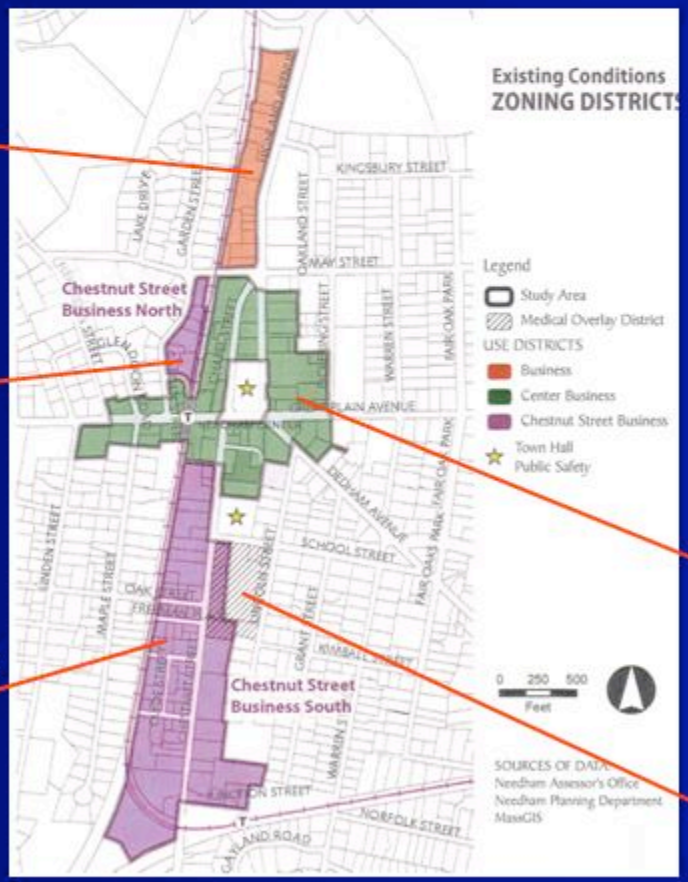
Needham Master Plan
Total Parking Proposed
Scenarios 1 and 2
Downtown Locations

Highland Avenue
472 or 468 spaces
(418 required)

Chestnut St - North
141 or 138 spaces
(123 required)

Chestnut St - South
2,491 or 2,433 spaces
(2,179 required)



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Center Business
2,792 or 2,747
spaces (2,457
required)

Medical Overlay
545 or 545 spaces
(464 required)

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* Parking requirements based on total proposed building area and ITE Parking Generation (3rd Edition): Land Use Codes 221-Low/Mid Rise Apartments, 701 Office Building and 820 Shopping Center (non-December)

Needham Master Plan
Anticipated AM and PM Trips
Generated in Downtown Locations

Highland Avenue
36 AM trips (28 in/8 out)
72 PM trips (28 in/44 out)

Chestnut St – North
26 AM trips (19 in/7 out)
50 PM trips (20 in/30 out)

Chestnut St – South
447 AM trips(332 in/115 out)
914 PM trips(368 in/546 out)

N

Center Business
344 AM trips (256 in/88 out)
706 PM trips (284 in/422 out)

Medical Overlay
91 AM trips (80 in/11 out)
88 PM trips (15 in/73 out)

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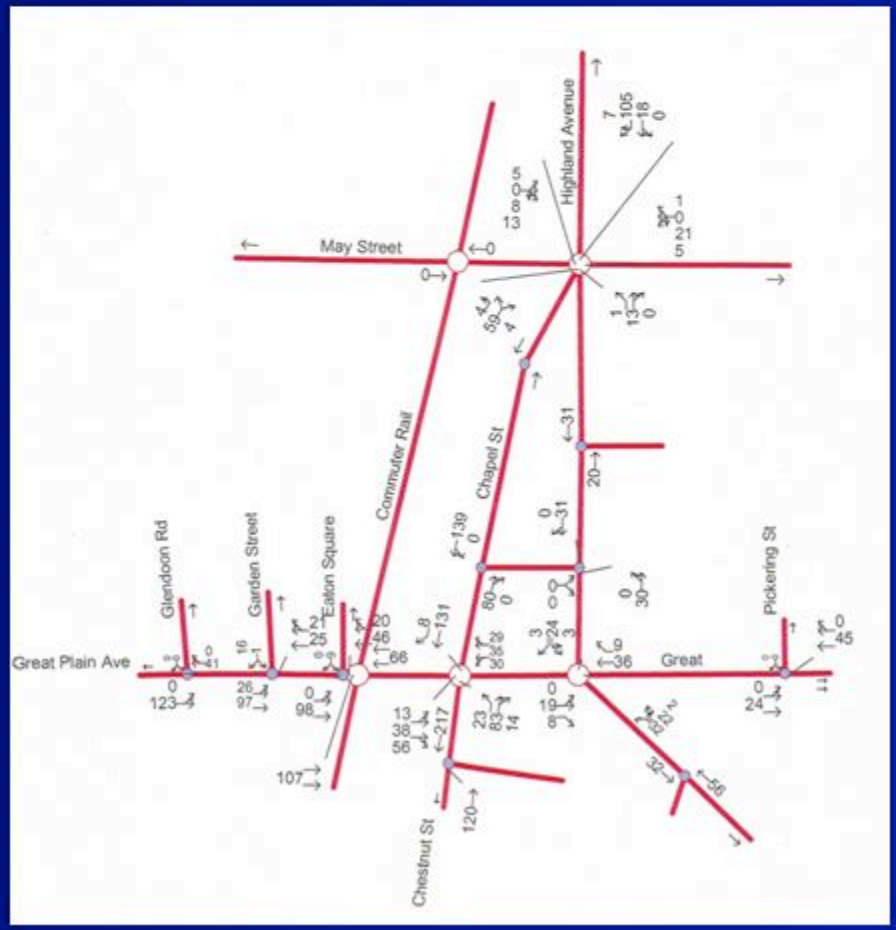
* Trip Generation based on total proposed building area and ITE Trip Generation (7th Edition):
Land Use Codes 220-Apartments, 710 Office Building and 820 Shopping Center

Needham Master Plan Anticipated AM Trips Generated in Downtown



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Traffic into Study Area Increased by 527 trips or 15%

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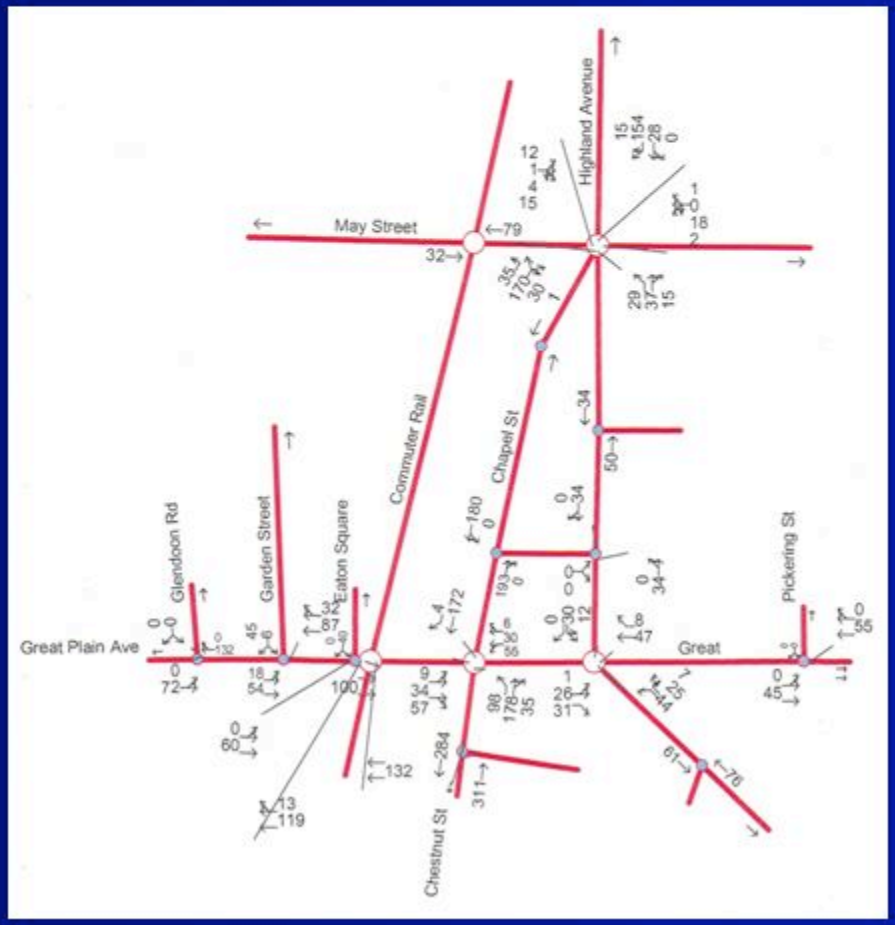
Needham Master Plan Anticipated PM Trips Generated in Downtown



N

Traffic into Study Area Increased By 765 trips or 23%

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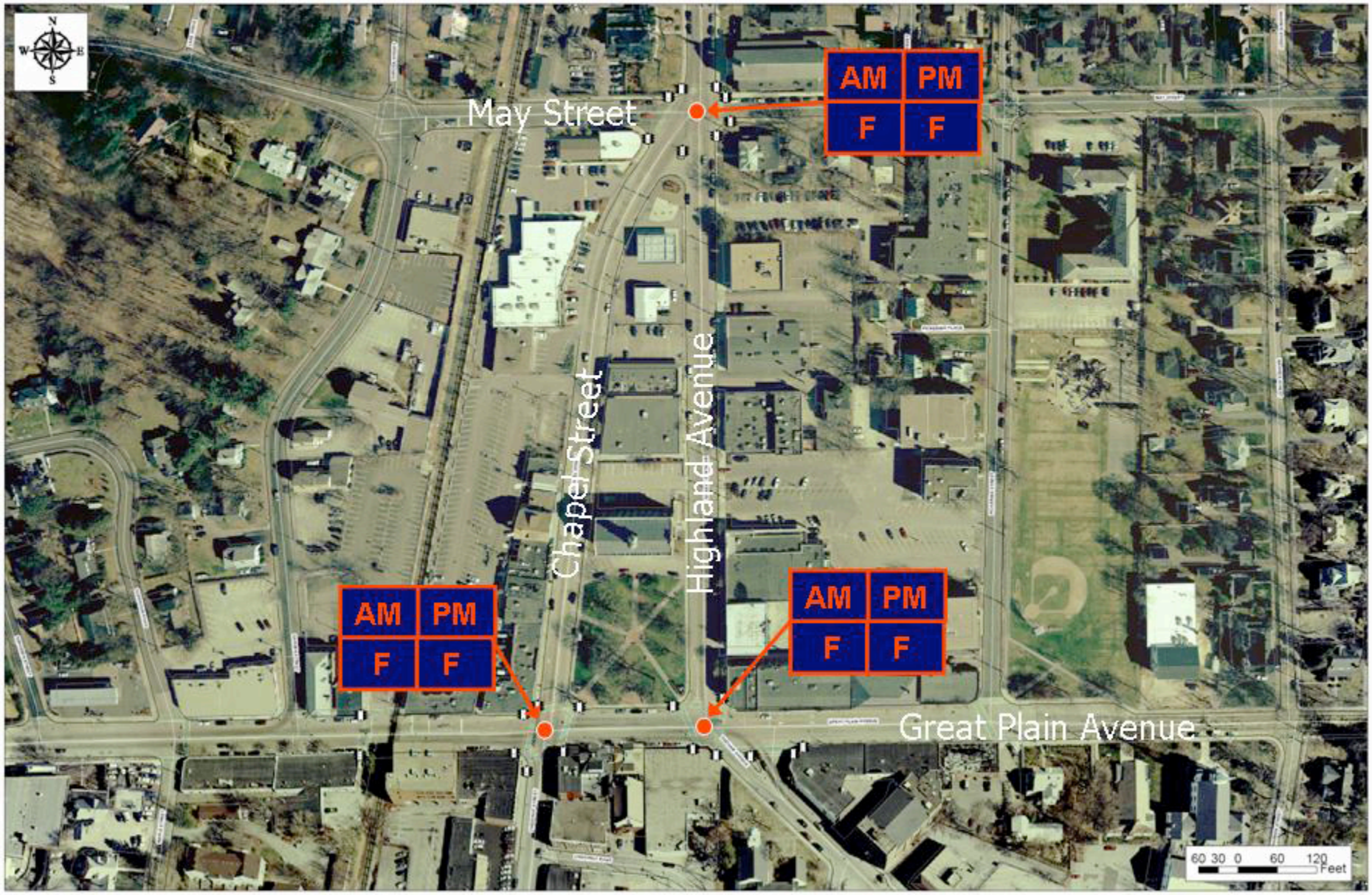
2027 Build Traffic Operations without Mitigation



Needham Master Plan
Traffic Mitigation
Concepts for Downtown

- Adjust signal phasing - lead left onto Chapel St or Highland St for GPA eastbound traffic
- Optimize signal timing and coordination
- Improve railroad pre-emption on GPA
- Upgrade signal equipment at Chapel St/Chestnut St /GPA and Highland Ave/Dedham Ave/GPA
- Install traffic responsive closed loop system
- Geometry changes such as realignment of Chapel St SB and possibility of additional lane on GPA
- Traffic pattern changes to provide additional lanes – one way northbound on Highland Ave and one way southbound on Chapel St

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